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Notice of Allowability	Application No.	Applicant(s)	
	10/726,330	MIYAZAKI, TETSUYA	
	Examiner	Art Unit	
	David S. Kim	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 21 June 2007.
2. ☒ The allowed claim(s) is/are 5-11, 16-18, 21 and 22 (renumbered as claims 1-12).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Raymond R. Tabandeh on Wednesday, 18 July 2007. This examiner's amendment is based on the Amendment After Final Action that was filed on 21 June 2007. This Amendment After Final Action is entered.

The application has been amended as follows:

In the claims (strikethrough portions are deletions, underlined portions are additions)

Claim 5. An optical receiver comprising:

an optical divider to divide a signal light from an optical transmission line into two portions;
a first and a second dispersion compensators, each dispersion compensator having variable dispersion compensation to compensate chromatic dispersions of each of the two portions of signal light output from the optical divider;

a data demodulator to demodulate a data carried by a signal light output from the first dispersion compensator;

an optical autocorrelator to operate on a signal light output from the second dispersion compensator; and

a controller to control the second dispersion compensator to increase autocorrelation of the optical autocorrelator, and to control the first dispersion compensator according to the result of said controlling the second dispersion compensator.

Claim 8. An optical receiver comprising:

a first optical divider to divide a signal light input from an optical transmission line into two portions;

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a first and a second dispersion compensators, each dispersion compensator having variable dispersion compensation to compensate chromatic dispersion of each portion of signal light output from the first optical divider;

a second optical divider to divide an output light from the first dispersion compensator into two portions;

a data demodulator to demodulate a data carried by a first portion of signal light output from the second optical divider;

an optical autocorrelator;

an optical selector to select an output light from the second dispersion compensator, or a second portion of output light from the second optical divider, and to supply the selected output light to the optical autocorrelator; and

a controller to control the second dispersion compensator to increase autocorrelation of the optical autocorrelator when the optical selector is controlled to supply the output signal light from the second dispersion compensator to the optical autocorrelator, and to control the first dispersion compensator according to the result of the control of the second dispersion compensator.

Claim 9. The optical receiver of claim 8 wherein the controller controls the first dispersion compensator to increase ~~autocorrelation~~ autocorrelation of the optical autocorrelator when the optical selector is controlled to supply an output signal light from the first dispersion compensator to the optical autocorrelator.

Claim 16. A method for controlling a first dispersion compensator to compensate chromatic dispersion of a first portion of a signal light input from an optical transmission line, the method comprising:

dividing the signal light input into the first portion and a second portion;

providing a second dispersion compensator having variable dispersion compensation to compensate chromatic dispersion of the second portion of the a-signal light input from the optical transmission line;

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operating autocorrelation by an optical autocorrelator on ~~of~~ a signal light output from the second dispersion compensator;

controlling the second dispersion compensator to increase ~~the~~ autocorrelation of the optical autocorrelator; and

controlling the first dispersion compensator according to the result from said controlling the second dispersion compensator.

In the specification (strikethrough portions are deletions, underlined portions are additions)

Amend the 2nd full paragraph on p. 5 of the substitute specification (filed on 06 February 2007) as shown below:

Preferably, the first dispersion compensator comprises a dispersion/dispersion slope compensator having variable amount of dispersion compensation and variable dispersion slope. The dispersion slope of the dispersion/dispersion slope compensator is controlled so that the transmission error rate of the optical transmission line obtained from the output signal light from the first dispersion compensator becomes ~~larger~~ smaller.

Amend the 1st full paragraph on p. 13 of the substitute specification (filed on 06 February 2007) as shown below:

It is possible to substitute the two optical circulators 72a and ~~74a~~ 70a with a single optical circulator having four ports.

In the abstract (strikethrough portions are deletions, underlined portions are additions)

Replace the previous abstract (filed on 20 May 2004) with the following abstract:

An optical receiver including an optical divider to divide a signal light from an optical transmission line into two portions, a first and a second dispersion compensators, each dispersion compensator having variable dispersion compensation to compensate chromatic dispersions of each of the two portions of signal light output from the optical divider, and a data demodulator to demodulate a data carried by a signal light output from the first dispersion compensator. The optical receiver further includes an optical autocorrelator to operate on a signal light output from the second dispersion compensator and a controller to control the second dispersion compensator to increase autocorrelation of the optical autocorrelator, and to control the first dispersion compensator according to the result of said controlling the second dispersion compensator.

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Conclusion


2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Noe (U.S. Patent No. 7,088,925 B1) is cited to show the use of an autocorrelation function to control a dispersion compensator (col. 6, l. 29-42).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Kim whose telephone number is 571-272-3033. The examiner can normally be reached on Mon.-Fri. 9 AM to 5 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N. Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSK


KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER